

Solenoid Quick Reference Guide



BIS offer a comprehensive range of stainless steel solenoid valves ranging from the smallest low pressure pneumatic 2 position 2 way valves to the largest 1" directional valves for use with high pressure liquids. With designs for topside and subsea, an extensive options list and our renowned ability to create bespoke designs, BIS can supply a solenoid valve for nearly every application.

Direct acting valves in which the valve element is moved directly by the solenoid thruster are an ideal choice for low pressure or low flow applications.

The BIS range includes options for manual override, manual reset, many connector types and voltages, including Ex d and Ex emb hazardous area coils with power consumption as low as 3 watts.

Pilot operated solenoid valves can be used to control much higher flow rates and more complicated directional control valve configurations by utilising a direct acting valve as a pilot element to operate a much larger or higher pressure main stage directional valve.

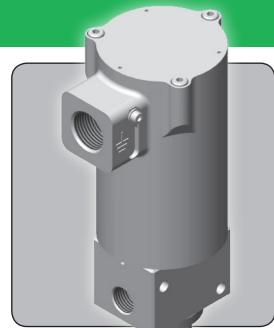
Low Pressure Valves

- ☑ 2 way, 3 way and 5 way configurations
- ☑ Industry leading specification including high force coil with low power consumption
- ☑ 360° coil rotation
- ☑ Automatic, manual override, and manual reset options
- ☑ Ex d and Ex emb hazardous area options with ATEX and IECEx certification
- ☑ Wide variety of connectors and voltage options
- ☑ Interface valve to drive high pressure valves from a low pressure source
- ☑ SIL3 Capability for safety critical applications

High Pressure Valves

- ☑ 2 position, 3 way and 4 way configurations
- ☑ Open transition and block-before-bleed main stage options
- ☑ Topside and subsea design
- ☑ Pilot valves fitted with high capacity filtration to 40 microns as standard for industry leading contamination resistance
- ☑ SIL3, hazardous area, manual reset and alternative mounting options available

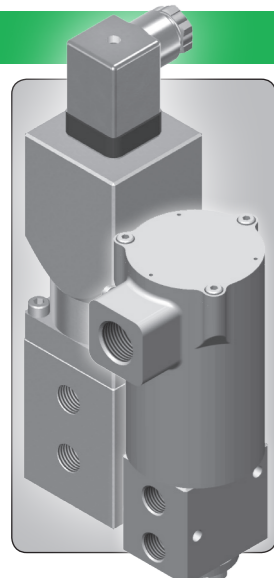
2 port direct acting solenoid valves



Nominal Size	Pressure	Media	Valve Type
1/4", 3/8"	16 bar (232 psi)	Liquids & Gases	2/2AS25
1/2"	16 bar (232 psi)	Liquids & Gases	2/2AS50

2 port solenoid valves, primarily stainless steel construction. Direct acting valves that incorporate balanced spool technology to enable bi-directional use. Elastomeric sealing for virtually zero leakage. Normally closed and normally open configurations. Manual override and manual reset options. Various port and seal options available. Various solenoid thrusters available.

3 port direct acting solenoid valves

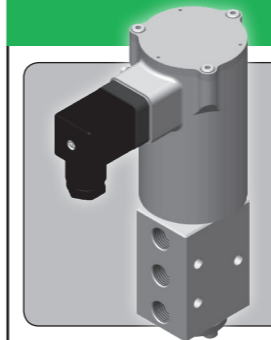


Nominal Size	Pressure	Media	Valve Type
1/4", 3/8"	16 bar (232 psi)	Liquids & Gases	2/3AS25
1/2"	16 bar (232 psi)	Liquids & Gases	2/3AS50
1/8", 1/4"	690 bar (10,000 psi)	Liquids only	2/3DS01
1/4"	414 bar (6,000 psi)*	Liquids & Gases	2/3DS25
3/8"	414 bar (6,000 psi)*	Liquids & Gases	2/3DS37
1/8", 1/4"	690 bar (10,000 psi)	Liquids only	2/3DS20/25
1/8", 1/4"	690 bar (10,000 psi)	Liquids only	CS20

3 port solenoid valves, primarily stainless steel construction. Direct acting valves mostly incorporating balanced spool technology to enable bi-directional use. Wide range of flow and pressure options. Topside and subsea valves available. Manual override and manual reset options. Various port and seal options available. Various solenoid thrusters available. * NOTE - Pressure rating is reduced with gases.

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5 port direct acting solenoid valves

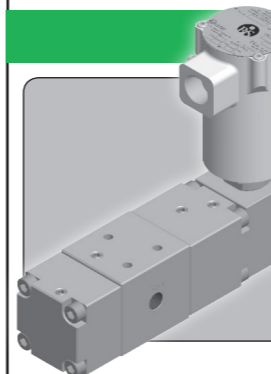


Nominal Size	Pressure	Media	Valve Type
1/4"	16 bar (232 psi)	Liquids & Gases	2/5AS25



5 port solenoid valves, primarily stainless steel construction. Direct acting valves that incorporate balanced spool technology. Used for control of double acting cylinders. Elastomeric sealing for virtually zero leakage. Manual override and manual reset options. Various port and seal options available. Various solenoid thrusters available.

3 port internal pilot solenoid valves

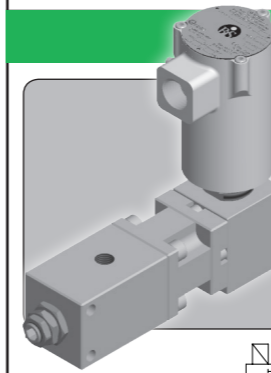


Nominal Size	Pressure	Media	Valve Type
1/4", 3/8"	690 bar (10,000 psi)	Liquids only	2/3PS25
1/2"	690 bar (10,000 psi)	Liquids only	2/3PS50
1"	690 bar (10,000 psi)	Liquids only	2/3PS100

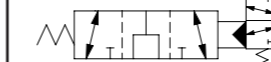


3 port solenoid valves, primarily stainless steel construction. Pilot operation from an integral solenoid pilot valve connected to the main stage supply line allows electrical control of higher pressures and flows than direct acting valves. Normally closed and normally open configurations. Manual override and manual reset options. Various port and seal options available. Various solenoid thrusters available.

3 port external pilot solenoid valves (open transition)

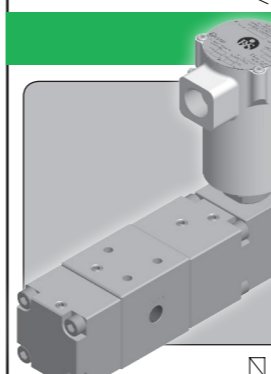


Nominal Size	Pressure	Media	Valve Type
1/4", 3/8"	690 bar (10,000 psi)*	Liquids & Gases	2/3EPS25
1/2"	690 bar (10,000 psi)*	Liquids & Gases	2/3EPS50
1"	690 bar (10,000 psi)*	Liquids & Gases	2/3EPS100

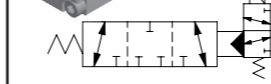


3 port solenoid valves, primarily stainless steel construction. Pilot operation from an integral solenoid pilot valve. The main stage valve element is controlled from an external hydraulic or pneumatic pilot supply. Normally closed and normally open configurations. Manual override and manual reset options. Various port and seal options available. Various solenoid thrusters available. * NOTE - Pressure rating is reduced with gases.

3 port external pilot solenoid valves (closed transition)



Nominal Size	Pressure	Media	Valve Type
1/4", 3/8"	690 bar (10,000 psi)	Liquids only	2/3EPSC25
1/2"	690 bar (10,000 psi)	Liquids only	2/3EPSC50
1"	690 bar (10,000 psi)	Liquids only	2/3EPSC100



3 port solenoid valves, primarily stainless steel construction. Pilot operation from an integral solenoid pilot valve. The block-before-bleed main stage minimises fluid loss during switching and is controlled from an external hydraulic or pneumatic pilot supply. Normally closed and normally open configurations. Manual override and manual reset options. Various port and seal options available. Various solenoid thrusters available.

